

Jaundice

Patient with jaundice



First look at the labs.



- **Elevated unconjugated**
(indirect) bilirubin
- Everything else is **normal**.



Hemolytic jaundice

KAPLAN

Jaundice (*cont'd.*)

Patient with jaundice



First look at the labs.



- Both fractions of bilirubin are **elevated**.
- **Very high** transaminases
- Near **normal** alkaline phosphatase



Hepatocellular jaundice

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Jaundice (*cont'd.*)

Patient with jaundice



First look at the labs.



- Both fractions of bilirubin are **elevated**.
 - **Near normal** transaminases
 - **Very high** alkaline phosphatase



Obstructive jaundice

Suspected Obstructive Jaundice

↓
Perform a sonogram.

↓
Dilated intrahepatic and extrahepatic ducts

↓
Look at the gallbladder.

↓
(Cont'd. on next slide)

Suspected Obstructive Jaundice

(*cont'd.*)

Look at the gallbladder.



- Shrunken gallbladder full of stones

- Obstruction probably due to stones



- Do ERCP to confirm the diagnosis; extract stones

- Cholecystectomy later

- Thin-walled, dilated gallbladder without stones

- It is a tumor.



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Suspected Obstructive Jaundice (*cont'd.*)

Thin-walled, dilated gallbladder without stones =
tumor

No info about
anemia or occult
blood in the stool

↓
Start with a CT
scan; if the tumor is
big, you will see it.

↓
If the CT scan is
negative, do an ERCP.

Positive anemia or
positive occult blood
in the stool

↓
Do an upper
gastrointestinal
endoscopy.

↓
It is probably
Ampullary cancer.

Biliary Tract Disease

The Fat Female in her Forties with Fifty
Five children
with **right upper quadrant** pain



Biliary tract disease



After initial labs, your
work-up always begins
with a **sonogram**.

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Biliary Tract Disease (*cont'd.*)

Gallstones are discovered
serendipitously.

The patient is completely **asymptomatic.**



**No surgery or other
treatment is indicated.**

Biliary Tract Disease (*cont'd.*)

History of **RUQ, colicky pain after fatty
foods**

No pain right now

Negative physical exam



Do a sonogram.



**Advise an elective
cholecystectomy.**

Biliary Tract Disease (*cont'd.*)

Acute inflammatory process

RUQ pain, tenderness, fever, leukocytosis

↓
Check LFTs

↓
Normal or minimally elevated

↓
Acute cholecystitis: start with **sonogram**

Positive gallstones,
thickened gallbladder
wall, and
pericholecystic fluid =
confirmed diagnosis

Not diagnostic

Do an **IDA scan**

↓
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Biliary Tract Disease (*cont'd.*)

IDA Scan

↓
Positive radioactivity in the liver, the common duct,
and the duodenum, but **not** in the gallbladder

↓
Diagnosis is confirmed

↓
Medical management first: NPO, intravenous
fluids, antibiotics

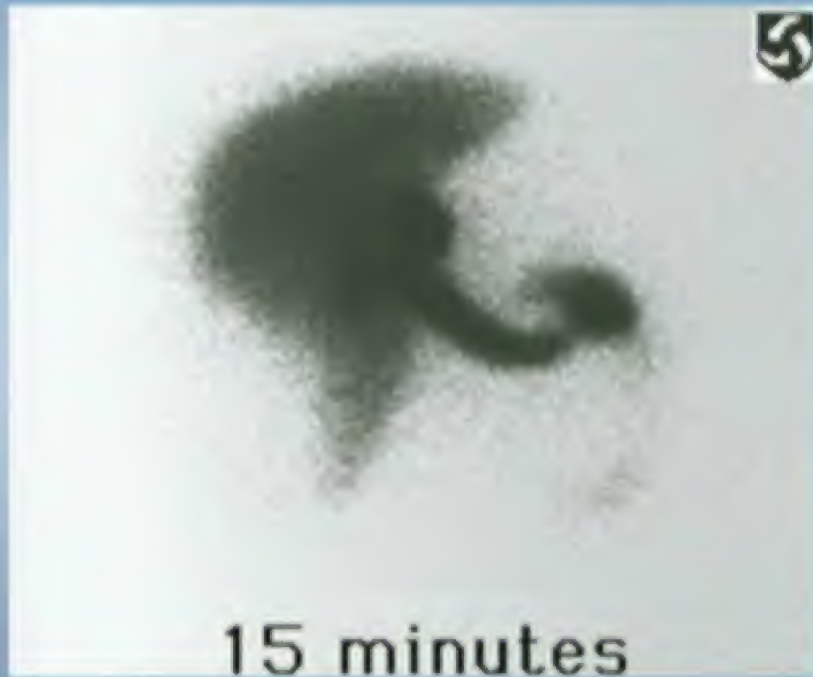
↙
Patient responded.

Elective
cholecystectomy when
convenient

↘
Patient is not responding
to medical treatment.

Emergent
cholecystectomy

Biliary Tract Disease: IDA Scan



Biliary Tract Disease (*cont'd.*)

Acute inflammatory process

RUQ pain, tenderness, fever, leukocytosis

↓
Check LFTs

↓
Elevated **bilirubin** and very high **alkaline phosphatase** in a very **old, sick** patient is **acute ascending cholangitis**.

↓
Sonogram shows dilated ducts, gallstones, **without** signs of gallbladder inflammation; this is a **BIG emergency**.

Intravenous antibiotics, ICU admission, immediate ERCP to drain the pus from the common bile duct

Biliary Tract Disease (*cont'd.*)

- Eventually, the patient will also require a cholecystectomy.

Biliary Tract Disease (*cont'd.*)

Acute inflammatory process

RUQ pain, tenderness, fever, leukocytosis

↓
Check LFTs

Elevated bilirubin, **alkaline phosphatase**, amylase, and lipase

↓
Biliary pancreatitis: start with **sonogram**

↓
Dilated ducts, gallstones in the gallbladder, no signs of gallbladder inflammation

Conservative treatment: NPO, intravenous fluids with hope the stone will pass spontaneously

Does not pass in a few days: ERCP, sphincterotomy, stone removal

Biliary Tract Disease

- In either case, there will have to be an eventual cholecystectomy